

ABSTRACT OF THE DISCLOSURE

A multi-stage turbine fuel pump (10) for automotive vehicles includes an inlet section (12) through which low pressure fuel is drawn into the pump, a first pump stage (14a) and a second pump stage (14b), and an outlet section (16) through which high pressure fuel is discharged from the pump. Components (13, 22a and 22b) comprising a pump inlet and respective first and second pump stages are aligned together by spring pins (32) inserted in open channels (36, 38, 44a and 44b) extending through the components so to improve fuel flow through the pump and prevent fuel leakage between the stages. Each pin has a hollow, cylindrical shape with a longitudinal slot (34) extending the length of the pin. The pins are made of a spring material, and each pin is compressed when inserted in place for the pin to thereafter press against a sidewall of the channel in which it is inserted, the force exerted by the pin on the channel sidewall maintaining alignment of the components.